

PRELIMINARY REMARKS

Claims 10 to 15 and 17 as set forth in Appendix IV of this paper are now pending in this case. Claims 10, 13, 15 and 17 have been amended as indicated in Appendix III of this paper. The specification has been amended to set forth the continuing data of the application (ie. *Appendix I and Appendix II of this paper*). No new matter has been added.

Applicants have amended Claims 10, 13, 15 and 17 to further specify the nature of the long-chain compounds which constitute component (B) of the copolymer utilized in applicants' composition as a thickener or dispersant. Accordingly, the constituent (B) of the copolymer is now specified as one or more compounds selected from the groups of

- (1) mono- or polyunsaturated C<sub>8</sub>-C<sub>30</sub>-monocarboxylic acids which may have additional hydroxyl groups, as well as their alkali metal and alkaline earth metal salts, alkyl esters, amides, sorbitan esters, glycerol esters or polyglycerol esters,
- (2) mono- or polyunsaturated aliphatic C<sub>8</sub>-C<sub>30</sub>-amines, and
- (3) mono- or polyunsaturated C<sub>8</sub>-C<sub>30</sub>-alcohols as well as their esters with saturated C<sub>1</sub>-C<sub>4</sub>-monocarboxylic acids,

(ie. *Claim 10*). In light of the respective amendment, the copolymers of applicants' invention no longer fall within the generic realm of the copolymers taught by **George** (EP 047 009) which require a combination of

- from 65 to 90% by weight of acrylic acid monomers, and
- from 10 to 35% by weight of an  $\alpha$ -olefin having 6 to 18 carbon atoms, styrene or a substituted styrene,

(ie. *page 2, indicated lines 19 to 26, of EP 047 009*). The disclosure of **George** provides nothing which would suggest or imply the modifications of the copolymers which are necessary to arrive at the copolymer of applicants' invention. The referenced prior art teaching therefore fails to render the subject matter of applicants' claims *prima facie* obvious. Favorable action is respectfully solicited.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit

Serial No. 08/325,219

SCHADE et al.

OZ 0050/43168

Account No. 11.0345. Please credit any excess fees to such deposit account.

Respectfully submitted,

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Encl.: THE SUBSTITUTE SECTION(S) OF THE SPECIFICATION (Appendix I)  
THE CHANGE(S) IN THE SPECIFICATION (Appendix II)  
THE CHANGES IN THE CLAIMS (Appendix III)  
THE AMENDED CLAIMS (Appendix IV)

HBK/BAS

A P P E N D I X I:

THE SUBSTITUTE SECTION(S) OF THE SPECIFICATION:

On page 1:

- After the title and prior to the first paragraph, ie. at indicated line 5, insert the following:

CROSS-REFERENCE TO RELATED APPLICATIONS

This is a Continued Prosecution Application of U.S. Application Serial No. 08/325,219, which was filed on October 21, 1994.

A P P E N D I X II:

THE CHANGE(S) IN THE SPECIFICATION:

On page 1:

- After the title and prior to the first paragraph, ie. at indicated line 5, the following new paragraph has been added:

CROSS-REFERENCE TO RELATED APPLICATIONS

This is a Continued Prosecution Application of U.S. Application Serial No. 08/325,219, which was filed on October 21, 1994.

## A P P E N D I X III:

THE CHANGES IN THE CLAIMS:

Amend Claim 10 as indicated in the following:

10. (*trice amended*) A cosmetic or pharmaceutical composition, containing as a thickener or dispersant an effective amount of a copolymer obtained by free radical polymerization of

- A) 50 - 99.9% by weight of an olefinically unsaturated C<sub>3</sub>-C<sub>5</sub>-monocarboxylic acid, of an olefinically unsaturated C<sub>4</sub>-C<sub>8</sub>-dicarboxylic acid or of its anhydride or a mixture of such carboxylic acids or anhydrides with
- B) 0.1 - 50% by weight of one or more long-chain compounds with isolated C-C multiple bonds selected from the group consisting of
  - (1) mono- or polyunsaturated C<sub>8</sub>-C<sub>30</sub>-monocarboxylic acids which may have additional hydroxyl groups, as well as their alkali metal and alkaline earth metal salts, alkyl esters, amides, sorbitan esters, glycerol esters or polyglycerol esters,
  - (2) mono- or polyunsaturated aliphatic C<sub>8</sub>-C<sub>30</sub>-amines, and
  - (3) mono- or polyunsaturated C<sub>8</sub>-C<sub>30</sub>-alcohols as well as their esters with saturated C<sub>1</sub>-C<sub>4</sub>-monocarboxylic acids,
  - ~~[(4) C<sub>10</sub>-C<sub>25</sub>-alkyl vinyl ethers, and]~~
  - ~~[(5) terminal or internal C<sub>16</sub>-C<sub>30</sub>-alkenes,]~~
- C) 0 - 49.9% by weight of other copolymerizable monomers and
- D) 0 - 10% by weight of one or more compounds with at least two olefinically unsaturated groups in the molecule as crosslinkers.

Amend Claim 13 as indicated in the following:

13. (*twice amended*) A composition as defined in claim 10, wherein the copolymers have been prepared using as component B one or more long-chain compounds with isolated double bonds selected from the group consisting of
- (1) mono- to tetraunsaturated C<sub>14</sub>-C<sub>24</sub>-monocarboxylic acids, as well as their alkali metal and alkaline earth metal salts, C<sub>1</sub>-C<sub>4</sub>-alkyl esters, glycerol esters or polyglycerol esters,

- (2) mono- to tetraunsaturated aliphatic primary C<sub>14</sub>-C<sub>24</sub>-amines, and
- (3) mono- to tetraunsaturated primary C<sub>14</sub>-C<sub>24</sub>-alcohols as well as their esters with saturated C<sub>1</sub>-C<sub>4</sub>-monocarboxylic acids, [7]
- ~~[(4) C<sub>10</sub>-C<sub>25</sub>-alkyl vinyl ethers, and]~~
- ~~[(5) terminal C<sub>16</sub>-C<sub>24</sub>-alkenes.]~~

Amend Claim 15 as indicated in the following:

15. (*trice amended*) A copolymer obtained by free-radical polymerization of
- A) 50 - 99.9% by weight of an olefinically unsaturated C<sub>3</sub>-C<sub>5</sub>-monocarboxylic acid, of an olefinically unsaturated C<sub>4</sub>-C<sub>8</sub>-dicarboxylic acid or of its anhydride or a mixture of such carboxylic acids or anhydrides with
  - B) 0.1 - 50% by weight of one or more long-chain compounds with isolated C-C multiple bonds selected from the group consisting of
    - (1) mono- to tetraunsaturated C<sub>14</sub>-C<sub>30</sub>-monocarboxylic acids as well as their alkali metal and alkaline earth metal salts, C<sub>1</sub>-C<sub>4</sub>-alkyl esters, glycerol esters or polyglycerol esters,
    - (2) mono- or polyunsaturated aliphatic C<sub>8</sub>-C<sub>30</sub>-amines, and
    - (3) mono- or polyunsaturated C<sub>8</sub>-C<sub>30</sub>-alcohols as well as their esters with saturated C<sub>1</sub>-C<sub>4</sub>-monocarboxylic acids,
    - ~~[(4) C<sub>10</sub>-C<sub>25</sub>-alkyl vinyl ethers,]~~
  - C) 0 - 49.9% by weight of other copolymerizable monomers and
  - D) 0 - 10% by weight of one or more compounds with at least two olefinically unsaturated groups in the molecule as crosslinkers.

Amend Claim 17 as indicated in the following:

17. (*amended*) A cosmetic or pharmaceutical composition as defined in claim 10 and containing as a thickener or dispersant an effective amount of a copolymer obtained by free radical polymerization of
- A) 50 - 99.9% by weight of an olefinically unsaturated C<sub>3</sub>-C<sub>5</sub>-monocarboxylic acid;
  - B) 0.1 - 50% by weight of one or more long-chain compounds with isolated C-C multiple bonds from the group comprising

- (1) mono- or polyunsaturated C<sub>8</sub>-C<sub>30</sub>-monocarboxylic acids,
  - (2) mono- or polyunsaturated aliphatic C<sub>8</sub>-C<sub>30</sub>-amines, and
  - (3) mono- or polyunsaturated C<sub>8</sub>-C<sub>30</sub>-alcohols,
  - ~~[(4) C<sub>10</sub>-C<sub>25</sub>-alkyl vinyl ethers, and]~~
  - ~~[(5) terminal or internal C<sub>16</sub>-C<sub>30</sub>-alkenes,]~~
- C) 0 - 49.9% by weight of other copolymerizable monomers, and
- D) 0 - 10% by weight of one or more compounds with at least two olefinically unsaturated groups in the molecule as crosslinkers.

## A P P E N D I X IV:

THE AMENDED CLAIMS:

10. (trice amended) A cosmetic or pharmaceutical composition, containing as a thickener or dispersant an effective amount of a copolymer obtained by free radical polymerization of
- A) 50 - 99.9% by weight of an olefinically unsaturated C<sub>3</sub>-C<sub>5</sub>-monocarboxylic acid, of an olefinically unsaturated C<sub>4</sub>-C<sub>8</sub>-dicarboxylic acid or of its anhydride or a mixture of such carboxylic acids or anhydrides with
  - B) 0.1 - 50% by weight of one or more long-chain compounds with isolated C-C multiple bonds selected from the group consisting of
    - (1) mono- or polyunsaturated C<sub>8</sub>-C<sub>30</sub>-monocarboxylic acids which may have additional hydroxyl groups, as well as their alkali metal and alkaline earth metal salts, alkyl esters, amides, sorbitan esters, glycerol esters or polyglycerol esters,
    - (2) mono- or polyunsaturated aliphatic C<sub>8</sub>-C<sub>30</sub>-amines, and
    - (3) mono- or polyunsaturated C<sub>8</sub>-C<sub>30</sub>-alcohols as well as their esters with saturated C<sub>1</sub>-C<sub>4</sub>-monocarboxylic acids,
  - C) 0 - 49.9% by weight of other copolymerizable monomers and
  - D) 0 - 10% by weight of one or more compounds with at least two olefinically unsaturated groups in the molecule as crosslinkers.
11. (amended) A composition as defined in claim 10, wherein the copolymers are obtained by free-radical polymerization of
- A) 75 - 99.45% by weight of carboxylic acid component A,
  - B) 0.5 - 24.95% by weight of the long-chain compounds with isolated C-C multiple bonds B,
  - C) 0 - 24.45% by weight of other copolymerizable monomers and
  - D) 0.05 - 5% by weight of crosslinker component D.
12. (amended) A composition as defined in claim 10, wherein the copolymers have been prepared using acrylic acid, methacrylic acid or maleic anhydride as component A.
13. (twice amended) A composition as defined in claim 10, wherein the copolymers have been prepared using as component B one or more



long-chain compounds with isolated double bonds selected from the group consisting of

- (1) mono- to tetraunsaturated  $C_{14}$ - $C_{24}$ -monocarboxylic acids, as well as their alkali metal and alkaline earth metal salts,  $C_1$ - $C_4$ -alkyl esters, glycerol esters or polyglycerol esters,
  - (2) mono- to tetraunsaturated aliphatic primary  $C_{14}$ - $C_{24}$ -amines, and
  - (3) mono- to tetraunsaturated primary  $C_{14}$ - $C_{24}$ -alcohols as well as their esters with saturated  $C_1$ - $C_4$ -monocarboxylic acids.
14. (amended) A composition as defined in claim 10, wherein the copolymers are used which have been prepared using as component D allyl ethers of pentaerythriol, trimethylolpropane or sucrose with at least two allyl ether units in the molecule as well as allylether methacrylate, oleyl (meth)acrylate or methylenebisacrylamide.
15. (trice amended) A copolymer obtained by free-radical polymerization of
- A) 50 - 99.9% by weight of an olefinically unsaturated  $C_3$ - $C_5$ -monocarboxylic acid, of an olefinically unsaturated  $C_4$ - $C_8$ -dicarboxylic acid or of its anhydride or a mixture of such carboxylic acids or anhydrides with
  - B) 0.1 - 50% by weight of one or more long-chain compounds with isolated C-C multiple bonds selected from the group consisting of
    - (1) mono- to tetraunsaturated  $C_{14}$ - $C_{30}$ -monocarboxylic acids as well as their alkali metal and alkaline earth metal salts,  $C_1$ - $C_4$ -alkyl esters, glycerol esters or polyglycerol esters,
    - (2) mono- or polyunsaturated aliphatic  $C_8$ - $C_{30}$ -amines, and
    - (3) mono- or polyunsaturated  $C_8$ - $C_{30}$ -alcohols as well as their esters with saturated  $C_1$ - $C_4$ -monocarboxylic acids,
  - C) 0 - 49.9% by weight of other copolymerizable monomers and
  - D) 0 - 10% by weight of one or more compounds with at least two olefinically unsaturated groups in the molecule as crosslinkers.
17. (amended) A cosmetic or pharmaceutical composition as defined in claim 10 and containing as a thickener or dispersant an effective amount of a copolymer obtained by free radical polymerization of

- A) 50 - 99.9% by weight of an olefinically unsaturated C<sub>3</sub>-C<sub>5</sub>-monocarboxylic acid;
- B) 0.1 - 50% by weight of one or more long-chain compounds with isolated C-C multiple bonds from the group comprising
  - (1) mono- or polyunsaturated C<sub>8</sub>-C<sub>30</sub>-monocarboxylic acids,
  - (2) mono- or polyunsaturated aliphatic C<sub>8</sub>-C<sub>30</sub>-amines, and
  - (3) mono- or polyunsaturated C<sub>8</sub>-C<sub>30</sub>-alcohols,
- C) 0 - 49.9% by weight of other copolymerizable monomers, and
- D) 0 - 10% by weight of one or more compounds with at least two olefinically unsaturated groups in the molecule as crosslinkers.